

Brownfields a bezpečnost

Brownfields and Safety

prof. PhDr. Hana Vykopalová, CSc.

VŠB-TUO, Fakulta bezpečnostního inženýrství

Lumírova 13, 700 30 Ostrava-Výškovice

hana.vykopalova@vsb.cz

Abstrakt

Sociální prostředí a jeho význam pro člověka a jeho socializaci. Urbanismus a architektura jako důležité prvky ovlivňující vnímání a chování. Sociální prostředí jako nositel kulturních hodnot a sociální interakce. Brownfieldy jako specifická forma veřejného prostoru. Veřejný prostor, sociální prostředí, brownfieldy a vnímání bezpečí. Brownfields jako příčina sociální segregace a zdroj kriminality.

Klíčová slova

Veřejný prostor, životní prostředí, kriminalita, bezpečnost, brownfields.

Abstract

Social environment and its importance for man and his socialization. Urbanism and architecture as important elements influencing perception and behavior. Social environment as a bearer of cultural values and social interaction. Brownfields as a specific form of public space. Public space, social environment, brownfields and perceptions of safety. Brownfields as a cause of social segregation and a source of crime.

Keywords

Public space, environment, crime, security, brownfields.

Introduction

Human existence is inextricably linked to space and the environment. Its characteristics significantly influence human behavior, both positively and negatively. The vast majority of the world's population now lives in cities. Urban environmental elements in the form of settlement of towns and villages and their functionality facilitate the social integration of man into society and contribute to the fulfillment and satisfaction of social needs. As well as the influence of architecture, which is an aesthetic or artistic expression of individual elements of the settlement and serves as an inner experiential and emotional area. The constant transformation of the urbanization process brings a number of changes that have an impact on the environment in the form of brownfields, whose regeneration is stagnant and is a source of social segregation and crime.

The importance of social space and environment and their influence on behavior

The process of defining the concepts of space and environment can be traced back to the times of ancient philosophy, where space was understood as something open, free and flowing. However, different disciplines define space differently.

Today, space is considered one of the basic categories of architecture. For most modernist architects, the space was universal and was understood as a place where the public and private spheres intermingled (Vidler 2001). The space is mediated by places and things that are also the boundaries of the place. A person's relation to space is given by his relation to a thing (building) and thus also to a place. The environment is generally defined as the conditions for life and thus everything that surrounds a person in a particular place.

The environment influences human actions and behavior, mainly on the basis of spatially arranged elements of the environment. The spatial arrangement of environmental elements affects the communication and character of interpersonal ties, as well as social norms, traditions and cultural values. Human behavior is influenced not only by the physical elements of the environment, but also by its symbolic meaning given by its socio-historical development (Černoušek 1986). The spatial structure of a place affects the image of the place, which is related to the emotions associated with the environment. Feelings of safety are among the most important. In each environment, therefore, a person behaves differently, which is also influenced by his psychological characteristics and dispositions, but also by his social role. A number of criminological theories are based on these paradigms, dealing with the causes of criminal behavior in certain places and at certain times. E.g. Broken windows theory suggests that a neglected environment can promote socially pathological behavior and crime. A similar is the theory of incivility, associated with physical elements (vandalism) and with social elements, such as quarrels, fights and street fights. All of these (and many other) theories point to the importance of a place in relation to behavior and a direct connection to a particular type of brownfields occurring in certain places.

Theories focused on elements of environmental design of the environment are among the most important. They are based on the assumption of the importance of certain environmental stimuli, which in some way activate the offender and the offender reacts to them, and criminality in these areas is more common than elsewhere (Newman, Brantingham and Brantingham in Herbert and Hyde 1985).

Urban public space and the perception of urban space

Users associate urban public space with "locational socialization", which represents the knowledge of the meanings of these locations and knowledge of rules of conduct that apply to them and the space is subject to social control (Lofl, 1973, p. 102). If there are changes in the use of public space known as "the territorial appropriation", by groups of homeless people, drug addicts, people publicly drinking alcohol, etc., and the so far observed rules of conduct are violated, the given space receives a stigma and the nature of its use and purpose changes (Kärrholm, 2007, p. 441). Social control, regulation of conduct and exclusion eliminates the negative elements in the public space, but also significantly reduces the urban anonymity, which is associated with other characteristics of public space: mobility and indifference (Tonkiss, 2003, p. 301). In order to prevent stigmatization of public spaces due to inappropriate or unacceptable behavior, there are standards of behavior in public space having the form of municipal codes of conduct.

Urban public space is perceived both as a zone of attraction and threat, which is due to the unpredictability and lack of interpersonal relations between anonymous users (Cooper, 2007, p. 206), which gives rise to a sense of uncertainty and danger. Another feature of public space was predetermined historically, when almost everything was happening in city's public spaces, including the influx of migrants and other activities of minority and non-conformist groups (Atkinson, 2003; Lofland, 1973). On the other hand, attraction and authenticity of experience is the main feature of the attractiveness of urban public space that respects heterogeneous mix of people and social roles (Bahrtdt, 1998) and related types of behavior as well as uncertainty, anticipation and tension.

Specific public spaces

There are public spaces in selected regions with a very specific character, known as brownfields. These are neglected or contaminated buildings and spaces in urban areas that have lost their original purpose or are underused and without intense revitalization they cannot be properly or effectively utilized, they represent a source of crime and location of persons on the edge of social exclusion.

The issue of brownfields has been occurring in developed countries, approximately since 1970. In the Czech Republic, brownfields have been an issue since about 1997, when effects of industrial restructuring began to show. The largest concentration of brownfields in the Czech Republic is in Ostrava, which has a total of 79 brownfields, occupying a total area of 19.04 square kilometers, which represents 8.9 % of the total area of the city. Brownfields are by their nature divided into several basic types, and five of them occur in the city of Ostrava:

- *“industrial areas, where production was terminated”*,
- *“industrial areas where industrial production is expected to end”*,
- *“industrial waste ponds, sludge lagoons”*,
- *“industrial waste landfill”*,
- *“coal mine dumps”*.

(Strategic development plan)

These specific public spaces are often part of urban agglomerations and they cause spatial segregation and fluctuation. The importance of the local urban environment is highlighted by a number of researchers (Castles and Miller, 2009), in particular the impact of ecological elements of natural environment which is noise, odor, pollution and safety risks causing stress. Occurrence of these factors is generally higher (Poll, 1997) near brownfields, transportation highways or industrial zones and centers. This significantly affects the spatial and social segregation, and affects residential attractiveness. Social and spatial segregation has many different aspects. Currently, attention is paid to spatial segregation of minority groups, to socially disadvantaged groups and different ethnic groups that is usually accompanied by a series of socio-pathological phenomena, unemployment and crime, which ultimately leads to difficult communication with the majority social group and to the weakening of social cohesion (Friedrichs et al., 2003).

Public space and perception of safety

Public space, which has lost its original meaning and has not adapted to the needs of new residents and/or is a neglected area, becomes the source and cause of a wide range of socio-pathological behavior. This relates to the perception of safety of the residents in the location. Fear of crime has a significant impact on the human physical, psychological, social and behavioral areas (Lane et al., 2014). Fear of crime significantly affects physical health and subjective perception of mental well-being. Fear of crime also affects the behavior of people concerning crime prevention, but it also has an impact on the emergence of social isolation and lack of engagement in public activities (Cohen, 2008; Hanslmaier, 2013; Lane et al., 2014; Michalos and Zumbo, 2000; Moore, 2006).

Various studies on the determinants of fear of crime focus on socio-demographic factors such as age, gender, ethnicity and disability, as it concerns minority groups that are more easily endangered and bare a higher risk of persecution, especially due to their ethnic or racial background (Rader et al., 2012; Pain, 2000). Other studies emphasize the importance of direct and indirect experience of victimization as an important factor of the development of fear of crime (Lane et al., 2014). In the 70's of the 20th century, there were research studies highlighting the

importance of environment design and characteristics of specific locations (Jeffery, 1971; Newman, 1972) for the development of risk behavior and fear of being endangered. Recently, these relationships have been elaborated by environmental criminology, which emphasizes the importance of the context of time and place at which a given event occurs. It puts emphasis in particular on environment as a factor creating situational factors significantly affecting human behavior. Control and prevention of crime from this perspective is based on an analysis of crime patterns in the given environment and location.

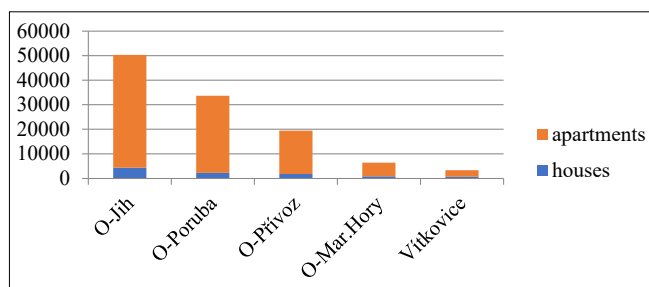
Ostrava brownfields

The character of brownfields in Ostrava is historically conditioned by the ongoing coal mining and the development of the metallurgical industry, which has been intensive in this area for almost 200 years. Among the most famous and largest brownfields until recently belonged Karolina and Lower Vítkovice, which are already largely recovered and used for commercial purposes.

Other equally discussed ones include the so-called social brownfields, which are the remains of hostels for workers created in connection with the development of the mining and metallurgical industries. Last but not least, there are also vacant flats in prefabricated houses built in the 1950s and 1960s in order to strengthen the stabilization of the labor force in the metallurgical and mining industries. Due to the decline of heavy industry and the abolition of coal mining, these facilities become obsolete. Unmaintained houses are used by low-income groups and are a source of crime and give rise to so-called "excluded localities".

The character of residential development in Ostrava is influenced historically in connection with the development of mining and metallurgical production, which originally concentrated in the central parts of the original villages requiring concentration and development of transport and other activities related to the industrial processing of raw materials. These industrial trends still remind the urban environment of the density of original roads and the amount of unused space originally serving as a material repository. The prolonged boom of industrial and mining production has prompted labor inflows and the construction of workers' colonies as close as possible to job opportunities in the central parts of the original villages. These remains of industrial expansion from the 19th and the beginning of the 20th century are still shaping the character of the urban area where the original premises, industrial buildings, furnaces and mining towers have already lost their original meaning and become a source of crime and vandalism. Their deployment and dilapidated situation in the center of the city districts is the cause of social segregation and differentiation.

The original housing development in the form of workers' colonies and original village houses is today a minority feature in some urban areas, the newer housing construction of panel housing estates dates back to the mid-20th century and later, again for expansion of the mining and heavy industry. The character of housing development in selected urban areas of Ostrava with relatively high crime rate is presented in the following graph.



Graph 1 Character of residential development in selected localities of the city of Ostrava

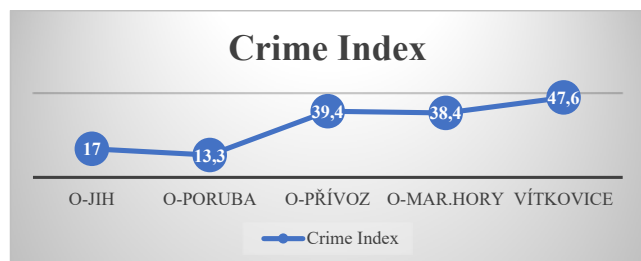
Source: Czech Statistical Office. Final results from slsb for the city districts of Ostrava. [online]. © 2021, [cit. 2021-03-03].

Available at: <https://www.czso.cz/csu/xt>

Surveys of some foreign sources point to the crime of urban settlements and their associated public spaces, including the crimes of large buildings with unclear backgrounds that create prerequisites and opportunities for crime and vandalism (Newman 1972). One of the preventive measures against crime can also become urbanistic elements and principles of architectural creation, which can influence the occurrence of crime and increase feelings of safety.

One of the modern preventive tools is the map of street-level crime and specific large-scale objects (factories, halls, and different types of brownfields) that can influence crime rates in selected areas, and may be more effective than the existing area maps of crime based on crime presentation through aggregate units. This system of searching by district police departments (PPE), districts or counties does not correspond to the territorial statistical division of the CZSO and rather serves to compare between regions or macroregions of the CR (Šimon, Jichová, 2018).

The following graph presents the crime index broadly in selected urban areas of Ostrava with numerous occurrences of brownfields, not directly via the streets or some urbanistic or brownfields.



Graph 2 Crime Index in Selected Areas of the City of Ostrava

Source: MAP OF CRIMINALITY. The Open Society Project, available at: <https://www.mapakriminality.cz>

The crime index altogether credibly corresponds to the character of residential development and the character of the urban environment and its functional and social indicators. Unfortunately, the process of recultivation of brownfields and related areas is very slow, because the interest of investors is not too high, recovery amounts are too high. The original signs of industrial concentration still remind us of neglected corners of attacking tree species and remains of mining and metallurgical activities, including the high density of transport roads that do not bear the signs of active traffic. All these negative features of the urban environment have criminogenic potential, they are a prerequisite for the emergence of excluded localities and the concentration of vandalism and crime. Otherwise, attractive areas in the central parts of the city bear the signs of social stigmatization, which completely eliminates the residential attractiveness of these urban areas.

This situation is undoubtedly influenced by the different economic parameters and income groups of the population, including a different approach to resolving the revitalization of abandoned buildings.

Conclusion

A human being needs an environment for his existence and satisfaction of all his needs. The environment's urban and architectural elements significantly influence the inner experience and are the carriers of cultural values. Public environment has many other aspects related to behavior, and having an impact on the emergence of segregation, migration, fluctuation etc. Public environment significantly influences the feeling of safety, which is important for maintaining an overall integrity of a human being. Devastation of the environment in the course of industrialization and exploring the possibilities of new urban solutions. The public environment significantly influences the occurrence of crime and security feelings that are important for maintaining the integrity of the human being. Each city and city space is unique, has its own individual history, its specific users, experiences and different atmosphere.

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